



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Area
Store 1 - Cowen
Machine Id
JOHN DEERE 850K 1T0850KXAEE259195
Component
Hydraulic System
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (28 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LECP193128	LECP190568	LECP188878
Sample Date		Client Info		14 May 2019	26 Jul 2018	05 Mar 2018
Machine Age	hrs	Client Info		4516	3568	3180
Oil Age	hrs	Client Info		2476	3568	1140
Filter Age	hrs	Client Info		2476	1528	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	15	20	21
Iron	ppm	ASTM D5185m	>23	11	13	10
Chromium	ppm	ASTM D5185m	>9	2	2	2
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m		1	<1	0
Silver	ppm	ASTM D5185m		<1	0	<1
Aluminum	ppm	ASTM D5185m	>9	8	8	6
Lead	ppm	ASTM D5185m	>28	<1	1	<1
Copper	ppm	ASTM D5185m	>51	7	8	6
Tin	ppm	ASTM D5185m	>5	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

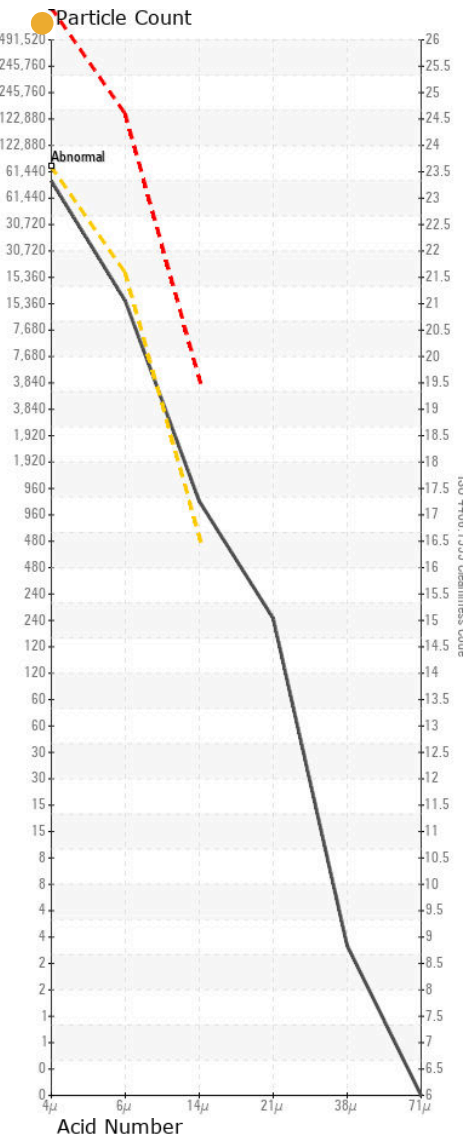
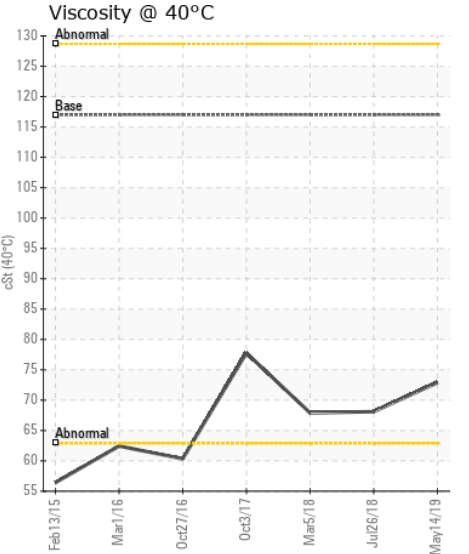
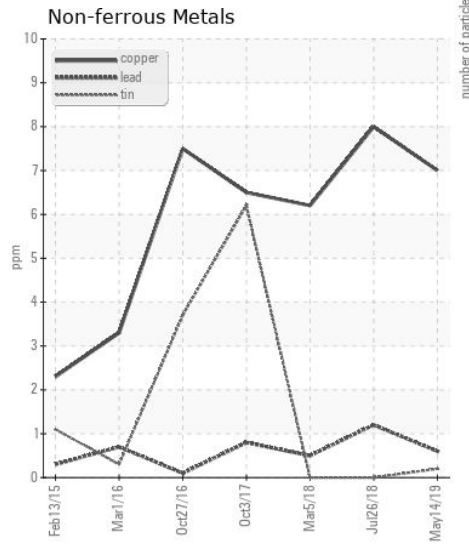
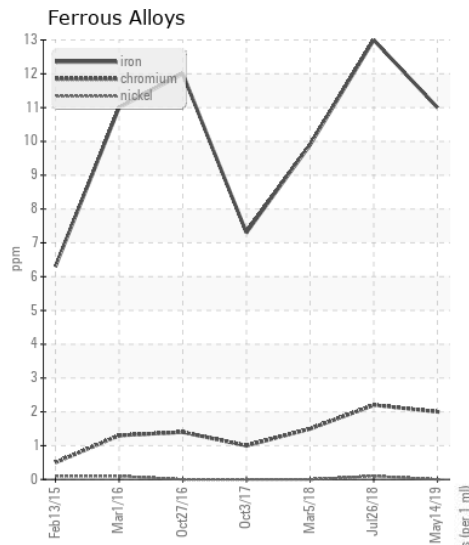
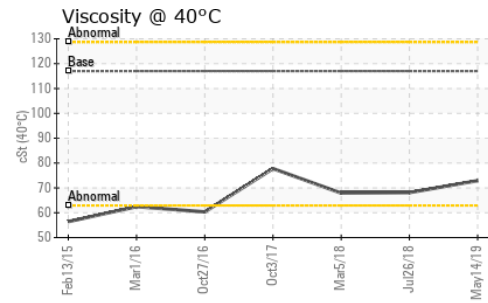
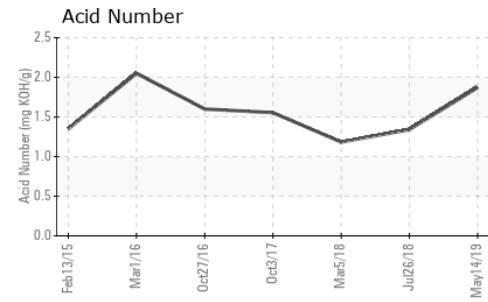
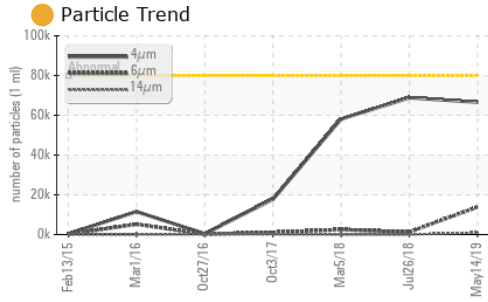
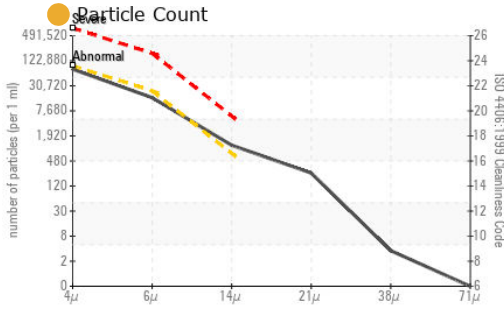
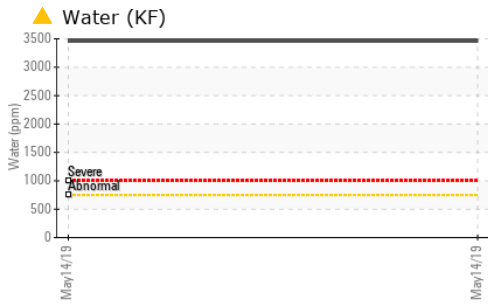
There is a moderate amount of particulates present in the oil. There is a light concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>31	12	16	16
Potassium	ppm	ASTM D5185m	>20	3	0	2
Water	%	ASTM D6304	>0.075	▲ 0.346	---	---
ppm Water	ppm	ASTM D6304	>750	▲ 3460	---	---
Particles >4µm		ASTM D7647	>80000	66556	68863	58138
Particles >6µm		ASTM D7647	>20000	13857	1263	2530
Particles >14µm		ASTM D7647	>640	● 1007	12	26
Particles >21µm		ASTM D7647	>160	● 217	3	8
Particles >38µm		ASTM D7647	>40	3	0	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	● 23/21/17	23/17/11	23/19/12
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.075	▲ 0.2%	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oils additive package is suitable for further service.

Sodium	ppm	ASTM D5185m	>21	2	2	2
Boron	ppm	ASTM D5185m		113	24	24
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		41	54	62
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		491	510	493
Calcium	ppm	ASTM D5185m		1302	1177	1174
Phosphorus	ppm	ASTM D5185m		959	863	899
Zinc	ppm	ASTM D5185m		924	963	884
Sulfur	ppm	ASTM D5185m		3118	2334	3067
Acid Number (AN)	mg KOH/g	ASTM D8045		1.871	1.341	1.183
Visc @ 40°C	cSt	ASTM D445	117	72.9	68.11	67.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC193128 **Received** : 17 May 2019
Lab Number : 04716388 **Tested** : 20 May 2019
Unique Number : 8602934 **Diagnosed** : 21 May 2019 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: KF, PQ)

LESLIE EQUIPMENT COMPANY
 105 TENNIS CENTER DR.
 MARIETTA, OH
 US 45750-9765
 Contact: LEANNE KENDALL
 KendalLeanne@lec1.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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